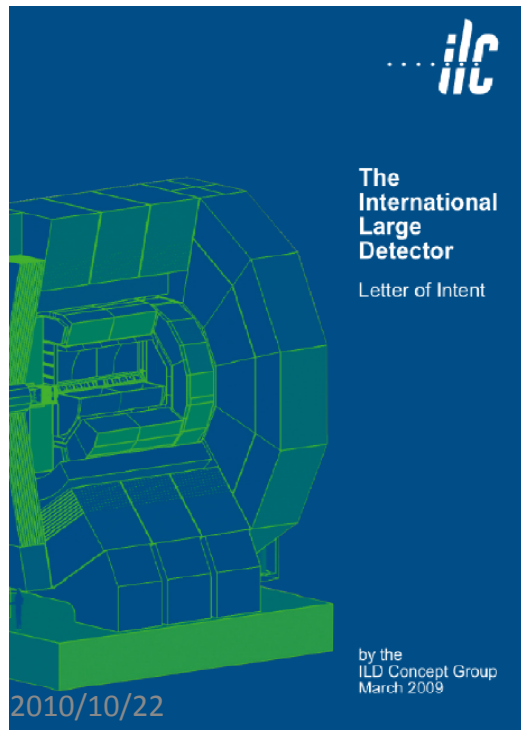


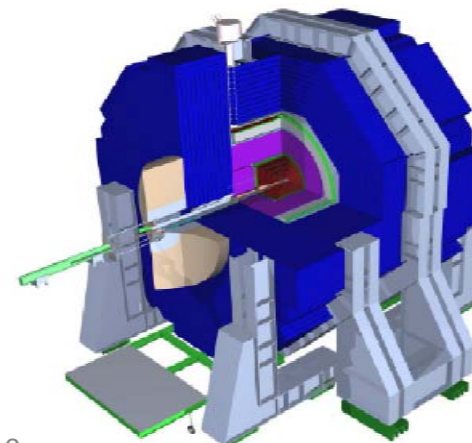
# Next steps of ILC Detector/Physics Studies

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IWLC2010 @Geneva  
October 21, 2010



SiD Letter of Intent

31 March 2009



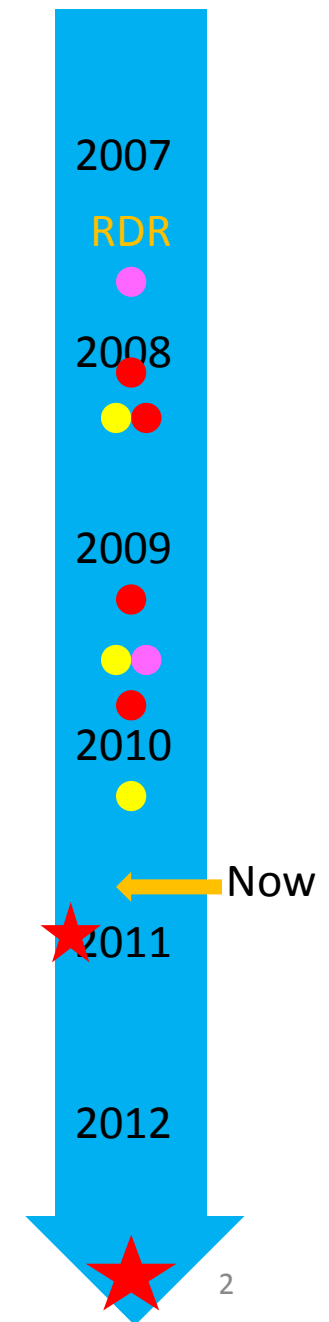
S.Yamada

IWLC2010

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# Where we are

- Fall 2007: **Call for LOIs was made by ILCSC**
- Jan. 2008: Detector management was formed
- Mar.2008: IDAG formed & 3 LOI groups known
- Mar.2009: 3 LOIs submitted
- Summer 09: IDAG recommendation for  
validation and ILCSC's approval
- Oct 2009: Work plan of the validated groups
- Mar:2009: IDAG began monitoring the groups
- **End 2010: Interim report to be produced**
- **End 2012: Detailed Baseline Design Report  
including physics case**



## Where we are (cont'ed)

- The two detector groups are in the middle of detector R&D, integration studies, and physics simulation,  
to complete Detailed Baseline Design of their concepts.  
They collaborate  
each other (through 5 common task groups),  
and with R&D collaborations and CLIC detector group.  
**IDAG monitors the progress of the groups  
and the activity of the CTGs.**

# Difficulties

- **Resources are limited.**

**9 items to be fulfilled in preparing DBD:**

**R&D for critical components to show feasibility and to define baseline design, etc.**

During the LCWS09 last March, we decided to reduce the aimed level of each item in view of the available resources.

**e.g. Reduction of benchmark reactions is being studied**

- The resource situation is not improving but shrinking, *remaining time till 2012 is getting less.*
- IDAG noted this difficulty, too.

# Cooperation with CLIC

- In Europe combined study for ILC+CLIC R&D is the recent way to obtain resources.
- **The two concepts are adapted also for CLIC detectors.**
- **Close cooperation with CLIC detector is going on.**
- **It mitigates some of the resource problem.**

Besides joint funding, exchange of knowledge/info.

*Seen from the ILC side, this also leads to a better understanding of the ILC detectors.*

# We have to watch

- Under the present human resources, we still wish that necessary works be completed in time to prepare for DBD.
- Cooperation gives effects on the plan (both +/-).
- The idea is to build a **win-win relation**.
- We hope a balance in a long-term if not on everyday base.  
*(Like a normal sea-saw, not like the neutrino see-saw mech.)*
- We have certain milestones, which must be kept.
- A Similar move for cooperation is under discussion in the US through joint requests for funding between ILC & Mu-C.

***Effort for ILC can be defocused in such an environment.***

# What will happen to DBDs ?

- The question = ‘ How ILC will be pushed forward after the TDR phase ?’
- **We need a clear view about how the ILC project will be brought forward toward realization.**
- **We are all waiting good news from LHC.**
- But **cannot** simply wait putting the completed documents on a bookshelf.
- **There are more R&D to continue, remaining physics studies to be refined. The mechanism for these efforts must be strengthened, too.**

## What comes next (cont'ed)

- GDE studies the governance and project implementation issues and we participate.

It is a role of ILCSC and/or ICFA to lay down a program after the TDR phase, regarding

***how the project should be introduced to the governments and seek ways for discussions in which the outcomes of the present works will be used to present physics case and feasibility.***

# ILCSC took a new move

- In the last ILCSC meeting, siting sub-group of ILCSC (J. Mnich, P. Oddone, A. Suzuki) proposed a possible scheme for the next steps.
- The idea is outlined in a white paper on **Comprehensive Project Design Guideline**.
- There are propositions on governance and site selection.
- The document is open for comments now.
- **This is a guideline and details are left open.**  
It presents a starting point for discussions in the community.

## We welcome this step

- Details are for everybody to read the paper and comment.
- CPDG proposes a transient scheme which conducts the project after the TDR phase to prepare the final form.
- The transient scheme can be regarded as a similar one to the present one, but can be made more solid or strengthened to work both for continuation of R&D and for realization of the project.
- In order to materialize the new system, we have to make our inputs for the discussion. We have experiences and see difficulties to be improved.

## The White Paper is open for comments

- The LC community should join this initiative of ILCSC.
- We wish to participate in the discussions to design the details of the coming scheme.
- I believe the voice of the community is the strongest force to move it.

# Summary

- We are in the middle of the way to complete detailed baseline design.
- Resources are limited and getting less for R&D works and simulation studies.
- Cooperation with CLIC detector is going widely. We hope this advances further to win-win relation.
- For the next step after 2012, ILCSC published CPDG. We need to study it and comment to create a desirable scheme to approach project realization.